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EXAMINER	
NGUYEN, KHAI N	

ART UNIT	PAPER NUMBER
2614	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/757,486	KANG, SUNG-WOON	
	Examiner	Art Unit	
	KHAI N. NGUYEN	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 January 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4 and 6-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4 and 6-19* is/are rejected.

7)☒ Claim(s) *4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on September 25, 2008 has been entered. Claims **1,** 3, **4**, 6, **7**-12, and **13**-**19** have been emended. Claims 2 and 5 have been canceled. No claims have been added. Claims 1, 3-4, and 6-19 are still pending in this application, with claims **1, 4, 7, 13**, and **19** being independent.

Claim Objections

2. Claim 4 is objected to because of the following informalities: The word "**beinig**" should be changed to "**being**". Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3-4, and 6-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 3-4, and 6-19 according to the amended specification can be implemented as "computer-readable data" and "the data may be transmitted via a communication medium such as carrier waves" (See the amended specification paragraph [0064], pages 2 and 3). Signals, magnetic field, and carrier waves did not fall

within at least one of the four enumerated categories of patentable subject matter recited in section 101 (i.e., process, machine, manufacture, or composition of matter).

Therefore, the claimed invention can be interpreted as carrier waves, signals, or electric/magnetic fields which are not statutory subject matter.

Claim Rejections - 35 USC § 103

4. Claim 1, 3-4, 7-8, 10-14, and 16-19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (U.S. Publication Number 2004/0139230 A1) in view of MeLampy et al. (U.S. Patent Number 7,133,923 hereinafter "MeLampy").

Regarding claims 1, and 3-4, Kim teaches a system for network address translation and session management (Figs. 1-3) comprising:

a calling terminal (Fig. 2, 310 Session Initiation Protocol (SIP) User Agent (UA) X) and a called terminal (Fig. 2, 410 SIP UA Y) connected to a network (Fig. 2, 350 Real Time Protocol (RTP) Relay) disposed outside of a private network address translation (NAT) network, and a called terminal (Fig. 2, 410 SIP UA Y) connected to the network address translation block beinig connected to an external network (Fig. 2, 350) disposed outside of the private NAT network (Fig. 2, 300 Domain A, 400, Domain B, 330 and 430 Symmetric NAT) (Fig. 2, paragraph [0046]);

a plurality of call agents (Fig. 2, 310 UA X, 410 UA Y) constituting the private NAT network having a network address translation block (Fig. 2, 340, 440 Static

Mapping Tables), and the plurality of call agents being responsible for establishing a call between the calling terminal (Fig. 2, 310) and the private NAT network, establishing a call between a called terminal (Fig. 2, 410) and the private NAT network (Fig. 2, paragraph [0047]); and

the network address translation block (Fig. 2, 340, 440) receiving a session initiation protocol (Fig. 2, 320 SIP Proxy X, 420 SIP Proxy Y) message transmitted from the calling terminal (Fig. 2, 310), called terminal (Fig. 2, 410) translating a public network address (Fig. 2, 340 External IP) extracted from the session initiation protocol message transmitted from the calling terminal to a local network address (Fig. 2, 340 Internal IP), and establishing a session for a communication path between the calling terminal and a selected call agent (Fig. 2, 310) among the plurality of call agents, translating a local network address (Fig. 2, 440 Internal IP) extracted from a session initiation protocol message transmitted from one of the plurality of call agents into a public network address (Fig. 2, 440 External IP), and establishing a session for a communication path between the called terminal and the one (Fig. 2, 410) of the plurality of call agents (Fig. 2, paragraphs [0048]-[0049]); and

the session initiation protocol message generated from the calling terminal (Figs. 2-3, UA X) comprises an INVITE message (Fig. 3, step 301 INVITE, paragraphs [0054]-[0056]).

However, Kim does not specifically disclose the detail about to select call agent among the plurality of call agents. Although Kim teaches how to use the user agents for

SIP calls and the NAT to simultaneously support multiple users to share public IP address (Figs. 1-3, paragraph [0005] and paragraph [0011]).

In the same field of endeavor, MeLampy teaches to select call agent among the plurality of call agents (See MeLampy – Fig. 13A, step 2304 Explode SIP Agents Groups Into List Of SIP Agents, step 2306 the List Of SIP Agents Is Used, column 54, line 45 through column 56 line 29). Brown further teaches that there is a need for the plurality of call/user agents in the SIP architecture to support the user mobility wherein the user can send a "register" message from any IP address or location to his home SIP proxy server and begin receiving communication (See MeLampy – Fig. 2, column 9 lines 7-50).

Therefore, it would have been obvious to a person of ordinary in the art at the time of the invention was made to incorporate the use of selecting call agent among the plurality of call agents, as taught by MeLampy, into the method and system of Kim in order to enhance the SIP service in the network having a NAT. Since, Kim teaches the call agents to set up a SIP call, and thus adding a selection of a call agent among the plurality of call agents is to apply a known technique to a known device ready for improvement to yield predictable results (see KSR – MPEP 2143). One having ordinary skill in the art would have been motivated to make such a modification to provide the user mobility, as per the teachings of MeLampy.

Regarding claims 7-8, 13-14, and 19, Kim teaches a method network address translation and session management (Figs. 1-3), the method comprising the steps of:

receiving, at a network address translation block (Fig. 3, step 301, INVITE) disposed within a private network address translation (NAT) network (Fig. 3, NAT) and provided between a calling terminal (Fig. 3, UA X, Proxy X'), a called terminal (Fig. 3, UA Y, Proxy Y') connected to a network (Fig. 3, RTP Relay) disposed outside of the private NAT network and a plurality of call agents (Fig. 3, UA X, UA Y) disposed within the private NAT network for sending a call from the calling terminal to the private NAT network, a call establishment request message generated from the calling terminal (Fig. 3, INVITE message), extracting a public network address from the received call establishment request message, and storing the extracted public network address (Fig. 3, steps S301-S303, paragraphs [0053]-[0055], i.e., creates and stores multiple public IP address/port pairs);

selecting a specific call agent (Fig. 3, step S305, UA X, UA Y) among the plurality of the call agents, storing a communication path for the selected specific call agent in session information of a relevant call (Fig. 3, steps S305-S313, paragraphs [0056]-[0059]); and

distributing traffic by transmitting a session initiation protocol message (Fig. 3, 200 OK Response Message) transmitted from the calling terminal, to the selected call agent (Fig. 3, UA X) only, using information stored in a session of the relevant call (Fig. 3, step 315, paragraphs [0060]-[0062]).

However, Kim does not specifically disclose the detail about to select call agent among the plurality of call agents and a computer-readable medium having computer-

executable instructions for performing a method. Although Kim teaches how to use the user agents for SIP calls and the NAT to simultaneously support multiple users to share public IP address (Figs. 1-3, paragraph [0005] and paragraph [0011]).

In the same field of endeavor, MeLampy teaches to select call agent among the plurality of call agents (See MeLampy – Fig. 13A, step 2304 Explode SIP Agents Groups Into List Of SIP Agents, step 2306 the List Of SIP Agents Is Used, column 54, line 45 through column 56 line 29), and a computer-readable medium having computer-executable instructions for performing a method (See MeLampy – column 7, line 45 through column 8 line 8). Brown further teaches that there is a need for the plurality of call/user agents in the SIP architecture to support the user mobility wherein the user can send a "register" message from any IP address or location to his home SIP proxy server and begin receiving communication (See MeLampy – Fig. 2, column 9 lines 7-50).

Therefore, it would have been obvious to a person of ordinary in the art at the time of the invention was made to incorporate the use of selecting call agent among the plurality of call agents and a computer-readable medium, as taught by MeLampy, into the method and system of Kim in order to enhance the SIP service in the network having a NAT. Since, Kim teaches the call agents to set up a SIP call, and thus adding a selection of a call agent among the plurality of call agents and a computer-readable medium is to apply a known technique to a known device ready for improvement to yield predictable results (see KSR – MPEP 2143). One having ordinary skill in the art would have been motivated to make such a modification to provide the user mobility, as per the teachings of MeLampy.

Regarding claims 10-11 and 17, Kim teaches a method, further comprising the step of deleting a session in which all information for the relevant call is stored when the relevant call is completed (Fig. 3, step S321 Delete Port Bind, paragraph [0065], i.e., values of relevant call created are deleted), and comprising the step of selecting a new call agent among the plurality of the call agents for uniform distribution of a second call when an "INVITE" message of the second call is received after the first call is terminated, processing a relevant call by transmitting the "INVITE" message to the newly selected call agent (Fig. 3, step S301 INVITE message, paragraph [0054]).

Regarding claims 12 and 18, Kim teaches a method, with the storing of the communication path for the specific call agent in the session information of the relevant call being performed after the steps of receiving the call establishment request message, extracting the public network address and storing the public network address (Fig. 3, steps S301-S303, paragraphs [0053]-[0055], i.e., creates and stores multiple public IP address/port pairs).

Regarding claim 16, Kim teaches a method, wherein the network address translation block performs the step of, when the call agent receives a "BYE" message indicating releasing the call after the call is completed, changing the private network address, within the "BYE" message, into a public network address, transmitting the

public network address to the called terminal (Fig. 3, steps S319-S323 BYE Message, paragraphs [0065]-0066]).

5. Claims 6, 9, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of MeLampy, and in view of Gallant (U.S. Publication Number 2003/0009463 A1).

Regarding claims 6, 9, and 15, Kim and MeLampy disclose everything claimed as applied above (see claims 4, 7, and 13 above) including a User Datagram Protocol (See Kim – paragraph [0021]). However, Kim and MeLampy do not specifically disclose the SIP detail files structure such as "CallID", "Via" and "Contact" fields within the SIP message.

In the same field of endeavor, Gallant teaches the SIP service transaction detail file structure includes the fields associated with the request message such as “CallID”, “Via” and “Contact” fields (See Gallant - page 8 TABLE II - Fields: Message, Syntax/Description). Therefore, it would have been obvious to a person of ordinary in the art at the time of the invention was made to incorporate the detail file structure fields such as “CallID”, “Via” and “Contact”, as taught by Gallant, into the method and system of Kim and MeLampy in order to enhance the SIP service in the network having a NAT. Since, Kim and MeLampy teach the SIP service to set up a SIP call, and thus adding the SIP fields such as “CallID”, “Via” and “Contact” is to apply a known technique to a

known device ready for improvement to yield predictable results (see KSR – MPEP 2143).

Response to Arguments

6. Applicant's arguments with respect to claims 1, 3-4, and 6-19 have been considered but are moot in view of the new ground(s) of rejection.

However, the Examiner reviewed Applicant's Remarks, which have been found not persuasive.

First, Applicant referred to an English translation of the earlier filed Korean patent dated 14 February 2003 and there duly assigned Serial No. 2003-0009512 along with a certificate of translation, but at the time of this Office action the certification of translation has not been received. Therefore, the certification of translation is not considered.

Second, the Kim '230 also has the earlier filed Korean patent dated 27 December 2002 and there duly assigned Serial No. 2002-0084994, which is earlier than this instant application foreign priority date, 14 February 2003.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI N. NGUYEN whose telephone number is (571)270-3141. The examiner can normally be reached on Monday - Thursday 6:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. N. N./
Examiner, Art Unit 2614
12/30/2008

/Rasha S AL-Aubaidi/
Primary Examiner, Art Unit 2614